



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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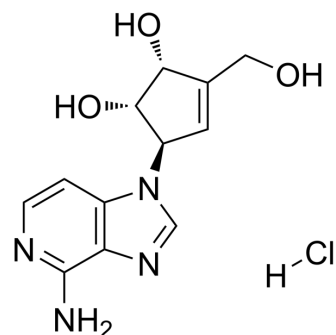
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## 3-Deazaneplanocin A hydrochloride (GMP)

Cat. No.:	HY-12186G
CAS No.:	120964-45-6
Molecular Formula:	C <sub>12</sub> H <sub>15</sub> ClN <sub>4</sub> O <sub>3</sub>
Molecular Weight:	298.73
Target:	Histone Methyltransferase; Orthopoxvirus
Pathway:	Epigenetics; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	3-Deazaneplanocin A (DZNep) hydrochloride (GMP) is <a href="#">3-Deazaneplanocin A hydrochloride</a> (HY-12186) produced by using GMP guidelines. GMP small molecules work appropriately as an auxiliary reagent for cell therapy manufacture. 3-Deazaneplanocin A hydrochloride is a potent histone methyltransferase EZH2 inhibitor <sup>[1][2]</sup> .									
<b>IC<sub>50</sub> &amp; Target</b>	EZH2									
<b>In Vitro</b>	<p>3-Deazaneplanocin A (20-200 nM, during 16-28 day) stimulates Oct4 expression in chemically induced pluripotent stem cells (CiPSCs)<sup>[2]</sup>.</p> <p>3-Deazaneplanocin A (20-200 nM, during 16-28 day) inhibits DNA and H3K9 methylation at the Oct4 promoter in CiPSCs<sup>[2]</sup>.</p> <p>3-Deazaneplanocin A (10 nM, 24 h) promotes developmental competence of cloned pig embryos<sup>[3]</sup>.</p> <p>3-Deazaneplanocin A (10 nM, 24 h) decreases the levels of H3K27me3 and H3K9me2 at the 2-cell, 4-cell and blastocyst stages<sup>[3]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Immunofluorescence<sup>[3]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>Cloned pig embryos</td> </tr> <tr> <td>Concentration:</td> <td>10 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Decreased H3K27me3 and H3K9me2 by approximately 45%, 37% and 7% at the 2-cell, 4-cell and blastocyst stages, respectively.</td> </tr> </table>		Cell Line:	Cloned pig embryos	Concentration:	10 nM	Incubation Time:	24 h	Result:	Decreased H3K27me3 and H3K9me2 by approximately 45%, 37% and 7% at the 2-cell, 4-cell and blastocyst stages, respectively.
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Concentration:	10 nM									
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Result:	Decreased H3K27me3 and H3K9me2 by approximately 45%, 37% and 7% at the 2-cell, 4-cell and blastocyst stages, respectively.									

### CUSTOMER VALIDATION

- Nat Commun. 2022 Jan 10;13(1):12.
- Apoptosis. 2020 Oct;25(9-10):697-714.
- Exp Mol Pathol. 2020 Feb;112:104344.
- J Pharmacol Exp Ther. 2019 Sep;370(3):490-503.

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- Biochem Biophys Res Commun. 2018 Sep 10;503(3):2061-2067.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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- [1]. Fiskus W, et al. Combined epigenetic therapy with the histone methyltransferase EZH2 inhibitor 3-deazaneplanocin A and the histone deacetylase inhibitor panobinostat against human AML cells. Blood. 2009 Sep 24;114(13):2733-43.
- [2]. Hou P, et al. Pluripotent stem cells induced from mouse somatic cells by small-molecule compounds. Science. 2013 Aug 9;341(6146):651-4.
- [3]. Zhao C, et al. DZNep and UNC0642 enhance in vitro developmental competence of cloned pig embryos. Reproduction. 2018 Apr 1;157(4):359-369.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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